

Lee's Mistake: Learning from the Decision to Order Pickett's Charge

by David C. Gompert and Richard L. Kugler

I think that this is the strongest position on which to fight a battle that I ever saw.

—Winfield Scott Hancock, surveying his position on Cemetery Ridge

It is my opinion that no 15,000 men ever arrayed for battle can take that position.

—James Longstreet to Robert E. Lee, surveying Hancock's position

This is a desperate thing to attempt.

—Richard Garnett to Lewis Armistead, prior to Pickett's Charge

The fault is entirely my own.

—Robert E. Lee to George Pickett, after the Charge.

Overview

At the Battle of Gettysburg, Robert E. Lee made a mistake that doomed the hopes of the Confederate States of America to compel the United States to sue for peace. Why one of the great generals of his time made such a blunder continues to be a topic of research and intense debate. Lee said little at the time or afterward to justify his decision to launch what has become known as Pickett's Charge, so analysis must be inferential and inconclusive. Our aim is to explain Lee's fateful decision not with new facts but with new analytical methods to illuminate decisionmaking in combat.

Understanding how commanders draw on reason and experience to make sense of information, weigh alternatives, and make decisions in conditions of urgency and uncertainty is central to improving military performance in the fast, unfamiliar, "wired" warfare of the information age. Lee's leadership of Confederate forces at Gettysburg constitutes a valuable case to study: the order of battle and technology of both sides are known in detail, and the terrain and troop movements have been studied thoroughly. Only the cause of Lee's misjudgment remains elusive.

The pages that follow examine the facts that might have influenced Lee's state of mind and his decision, offer and test alternative hypotheses on how he was thinking, draw conclusions, and apply those conclusions to matters of current interest.

Robert E. Lee is widely and rightly regarded as one of the finest generals in history. Yet on July 3, 1863, the third day of the Battle of Gettysburg, he ordered a frontal assault across a mile of open field against the strong center of the Union line. The stunning Confederate defeat that ensued produced heavier casualties than Lee's army could afford and abruptly ended its invasion of the North. That the Army of Northern Virginia could fight on for 2 more years after Gettysburg was a tribute to Lee's abilities.¹ While Lee's disciples defended his decision vigorously—they blamed James Longstreet, the corps commander in charge of the attack, for desultory execution—historians and military analysts agree that it was a mistake. For whatever reason, Lee was reticent about his reasoning at the time and later.²

How commanders digest information, draw on experience, weigh options, and make decisions in the face of urgency and uncertainty are concerns as old as human conflict. Yet these concerns are more critical than ever in the fast, unfamiliar, wired warfare of the information age—all the more reason to learn about cognitive performance, good and bad, from military history. Lee's thinking at Gettysburg is an especially intriguing case to study: the facts are known, there is wide agreement that his decision to attack on July 3 was flawed, yet the cause of his misjudgment remains elusive.

In the pages that follow, our hope is to reveal lessons of value in improving today's military decisionmaking. We examine the facts surrounding Lee's state of mind and his decision, offer and test alternative hypotheses on how he was thinking, draw some conclusions, and apply those conclusions to matters of current interest. We begin with a general framework for analyzing cognition in combat, hoping that it will help explain Lee's decisionmaking at Gettysburg.

Battle-Wise Cognition

In war, when conditions are complex and dynamic, time is short, and information is sketchy, the key to making good decisions is to *integrate reliable intuition with timely reasoning*.³ Urgency demands intuition. Research in many fields—military, law enforcement, emergency medical service, firefighting, and disaster response—shows that the greater the time pressure, the more decisionmakers rely on intuition.⁴ Military commanders with exceptional intuitive powers can be uncommonly purposeful, bold, agile, responsive, and inspirational. For our purposes, intuition is based on the mental model or map an individual brings to a situation, wholly or largely based on experience. The intuitive decisionmaker does not consciously compare the risks and

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"I think you are right about Lee's intuition rather than reasoned analysis governing his decisions at Gettysburg. Lee clearly overestimated the potency of his own army and sorely underestimated the Army of the Potomac. This was all part of his mental map."

—James McPherson, Princeton University

rewards of alternative courses of action but instead cognizes and then proceeds down the path he or she has been conditioned to believe is right for the circumstances at hand.

Because of its time efficiency, intuition can be invaluable. However, because intuition is based on experience, its reliability depends heavily on whether the circumstances at hand are broadly familiar. When circumstances are unusual, intuition can be inadequate, inapplicable, and, if relied on absolutely, hazardous—like navigating perilous waters with the wrong chart. Intuition is most useful when the decisionmaker is aware of its limitations.

Conversely, reasoning—structured, logical analysis—is important when heightened complexity and unfamiliar conditions deplete the utility of experience, on which intuition depends. Time permitting, reasoning cannot but help, especially when it complements intuition. Reasoning makes systematic use of new information to check and correct intuition, to compare multiple options without bias, and to think through the knock-on effects of those options. However, because such methodical mental work can take time, decisionmakers tend to skip reasoning when time is precious, as it often is in combat. It follows that intuitive decisionmakers can be at an advantage, up to a point. But it also follows that the ability to buy time, to mine fresh data, and to create opportunity for reasoning can be crucial for cognitive effectiveness. It is not a matter of substituting analysis for intuition, but of integrating the two to get the benefits of both in urgent, complex, and unfamiliar situations.

For an intuitive commander, think of George Patton. For one who excelled in reasoning, there is Dwight Eisenhower. Each had strengths and weaknesses; each was a great, if imperfect, commander. Together, they were a potent duo.⁵ Package the strengths of the two into a single officer—thus canceling out their weaknesses—and you have what has been called a *battle-wise* decisionmaker.⁶ Lee usually exhibited this blend of intuition and reasoning, making all the more puzzling his error at Gettysburg.

Persons who are good at mixing reliable intuition with timely reasoning tend to be very *self-aware*: to know or be able to judge objectively when and how much they can rely on their intuition. Before making irrevocable decisions, especially weighty ones, they will ask themselves if their prefabricated mental models are applicable to the situation they face. All else being equal, the U.S. military establishment should favor this quality of self-awareness in the recruitment, retention, development, and assignment of people. Beyond that, the ability to integrate intuition and reasoning can be cultivated and ought to be stressed in military education and training. By recognizing the importance of both cognitive components and the benefit of integrating them, development programs can make more soldiers more battle-wise.

The *way* decisions are made during operations is also crucial. In the face of uncertainty, there is a need for what has been called *rapid-adaptive decisionmaking*, in which self-aware intuition is used purposefully but provisionally when both time and information are scarce—in turn, gaining time to gather more information,

using information to gain more time, and creating opportunity to reason, thus to enhance cognition. Indeed, the quest for data can be the principal aim of a chosen course of action. Adaptive decisionmaking relies on the ability to learn on the move and under fire. Such techniques exploit battle-wisdom and can be learned and practiced in military education and training.

Four cognitive abilities are particularly important in battle-wise decisionmakers and decisionmaking: anticipation, decision speed, opportunism, and learning in action. Each of these abilities is aimed at gaining and exploiting an operational *time-information* advantage, by which we mean the product of time and information, as suggested earlier. Anticipation can make time an ally—and an enemy of the enemy—from the outset of hostilities. Decision speed can provide an edge in setting the tempo and course of action. Opportunism seizes fleeting conditions that offer nonlinear gains; when two opposing forces are both potentially vulnerable, the one that strikes at the moment the other is especially vulnerable can prevail. Learning in action, as the term implies, means getting smarter and adjusting rapidly and continuously despite complexity and confusion—and perhaps being shot at—all the more advantageous if the enemy is relying on a script that events have superseded. The time-information advantages these abilities offer mean that information can be used to overcome urgency, the bane of rationality in combat.

Lee was battle-wise. He possessed intuitive powers normally associated with great commanders. His sense of the correlation of forces, including his enemy's vulnerabilities, went far beyond numerical comparison (which ordinarily favored Federal forces). His timing was usually too exquisite to attribute to good intelligence-gathering alone. While risk-taking was a Lee hallmark, it was usually informed by a calculus of favorable if fleeting odds, as well as an awareness that Confederate forces had to take risks to offset Union advantages in numbers and steel. Lee generally took pains not to endanger his entire force, for he knew that the Confederacy could not survive the disabling of the Army of Northern Virginia.⁷ And, as we know from numerous campaigns, a more flexible commander than Lee is hard to find. Unlike George Armstrong Custer, whose unwavering faith in his intuition and utter lack of self-awareness led to the destruction of the Seventh Cavalry at the Little Bighorn, Lee combined intuition and reasoning, seemingly aware of the limits of each.⁸ Whereas Custer stood dead last in his class at West Point, Lee was known for his intellect.⁹

If battle-wisdom is the basis for sound decisionmaking in combat, and if Lee was battle-wise, his failure at Gettysburg must have resulted from either circumstances beyond his control or a rare cognitive lapse. His defenders have offered the former explanation, though unconvincingly. Yet if it was an exceptional lapse, the reason for it has not been elucidated. Critics have done well explaining what was wrong about Lee's decision but not how he—especially he—could have been so wrong.

To understand how Lee could have erred so badly, we must first look at his performance in the Civil War up to Gettysburg and then examine what we know and can infer about his thinking in the run-up to Pickett's Charge. Since Lee's cognition is more or less a blind spot in contemporaneous records and subsequent analysis, we will offer two alternative interpretations and then suggest a preference between them.

Lee's Presumption of Victory

Lee's strategy at Gettysburg reflected above all his experiences of the previous year, which gave him confidence that the Army of Northern Virginia could defeat the Army of the Potomac in head-to-head combat. Although Union forces were, as usual, larger and better supplied, Lee judged that Confederate forces had better leadership, stronger infantry, greater maneuverability, and more "fight."

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Lee further judged that his troops could win on offense (although he was equally comfortable on defense when circumstances warranted). He did not embrace the idea that the rifles and cannons of the era, despite improved range and accuracy, gave a decisive advantage to fixed defenders.¹⁰ He knew that although defensive successes were needed to protect Richmond and the South, offensive victories were vital if he was to destroy the Army of the Potomac, strike fear in the Federal capital, undermine Northern public patience with Lincoln, and win the war. Lee thus approached Gettysburg with an offensive mentality, aiming for a great victory that would persuade the North that it could not subjugate the Confederacy at a tolerable price.

In Lee's mind, even if crowning his mid-1863 invasion of the North with a victorious battle was not sufficient to win the war, it may have been necessary to avoid losing it. It was not enough to parry the North's threat to the South's capital. A military stalemate would not do. Federal forces were gaining in the West, thanks mainly to the success of General Ulysses S. Grant. Eventually, the North's larger population and industrial base would wear down the agricultural South. The key was to shatter Northern public support for Lincoln's war before these advantages tipped the military balance. So Lee entered Pennsylvania as convinced of the need for victory as he was sure of its prospect.

Lee's confidence in his army's ability to defeat Union forces in direct combat began forming in June 1862, when President Jefferson Davis appointed him to command the Army of Northern Virginia. At the time, General George McClellan had brought the Army of the Potomac to the Chickahominy River, just east of Richmond. Lee had 87,000 troops to McClellan's 105,000.¹¹ After bolstering his defenses at Richmond, Lee launched a counterattack, breaking through Union defenses at Gaines Mill and compelling the risk-averse McClellan to retreat. The Confederate advance was halted 6 days later at Malvern Hill, enabling the Union force to escape.¹²

After this Seven Days' Battle, McClellan withdrew northward above the Rappahannock River, ending the threat to Richmond. On August 6, Lee went on the strategic offensive, sending his army to attack the Union rail juncture and supply base at Manassas, Virginia. At the Second Battle of Bull Run, Confederate Generals Thomas "Stonewall" Jackson and James Longstreet fielded 55,000 troops against 65,000 Union troops. Again, the Confederates won by timely offensive maneuvers.

The following month, Lee led a Confederate force of 40,000 troops onto Union territory in Maryland, where it was attacked at Antietam Creek by a Union force of 60,000 led by McClellan. Although Union soldiers fought hard and both sides took heavy losses, Lee was able to contain the attack and withdraw his army intact. McClellan's failure to pursue the Confederates left Lee further doubting the aggressiveness of Union generals and troops.

Lincoln replaced McClellan with Ambrose Burnside, but this did not change the pattern of regular success by Lee. In December 1862, Burnside ordered repeated frontal assaults on prepared Confederate defenses under Longstreet at Fredericksburg, Virginia. Although the Union force had an advantage in numbers—110,000 to 75,000—Lee easily repulsed the attacks, inflicting heavy losses on Union troops.¹³

In May 1863, Burnside's replacement, General "Fighting Joe" Hooker, moved South with a Union force of 110,000 near Chancellorsville, Virginia. Outnumbered two to one, Lee mounted a brilliant defense of maneuver and guile that culminated in a successful surprise counterattack by Jackson on Hooker's right flank. Hooker withdrew his army, and another threat to Richmond was averted. The victory, however, brought a significant Rebel death: that of Jackson, Lee's main instrument of offensive maneuver. By the summer of 1863, both Lee and Lincoln were impressed by the inferiority of Northern military leadership. Lee also had learned that he could gain decisive advantages at specific places and times despite a generally unfavorable balance of forces—the essence of maneuver warfare.

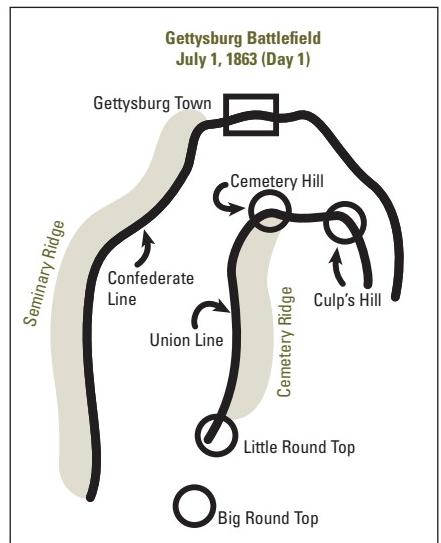
Gettysburg

Not long after Chancellorsville, Lee began preparing for a second invasion of Union territory with the intent of driving across southern Pennsylvania and menacing Philadelphia or Washington, DC. More important than overrunning Northern territory, Lee sought a battle in open country. He hoped to catch the Army of the Potomac off guard and then defeat it as it streamed northward in fragments to stop the Army of Northern Virginia. Execution of Lee's invasion plan suffered when his cavalry commander, General J.E.B. Stuart, wandered too far east to provide Lee with intelligence of enemy movements. With Lee partially blind, the Union army, now under the command of George Gordon Meade, moved smartly into Pennsylvania.

The two armies converged on Gettysburg, a key road juncture. A race was on to determine which side could gain control of the juncture. Lee had not planned to fight at Gettysburg, but he was not dissatisfied with the location or the timing, since he knew that supplying his army would become increasingly problematic. The Battle of Gettysburg pitted 75,000 Confederate soldiers against 90,000 Union soldiers.¹⁴ But, as usual, Lee entered the battlefield expecting to win. The decisive battle that Lee had sought raged for 3 days.

Day 1

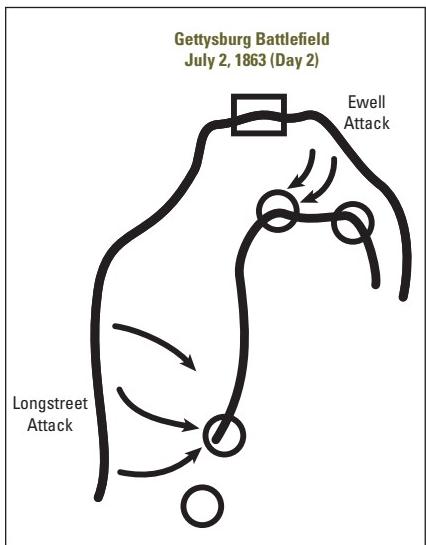
Hostilities began early on July 1 in haphazard fashion because only a small portion of each army was at the scene.¹⁵ Lee himself did not arrive until midday and found serious fighting already in progress. Initially, a Confederate division under Henry Heth, from the corps of General A.P. Hill, tried to enter the Gettysburg town center from the north but was blocked by two Union cavalry brigades under General John Buford, who is credited with preventing the rebels from seizing the town and its high ground. By the time Confederate reinforcements from Hill's corps and General Richard Ewell's corps arrived, a Union corps had come up, with another on the way. By mid-afternoon, 24,000 Confederates faced 19,000 Union troops. The Confederates attacked, and by 4:30 PM they had driven the two badly battered Union corps out of the town of Gettysburg southward to Cemetery Hill and Culp's Hill. Lee urged evening assaults against these elevations, but Hill and Ewell, their forces exhausted, failed to act.



The first day of battle ended with the Union force having lost over 9,000 troops killed, wounded, or missing, compared to 6,000 in Confederate losses. While the Union Army's numerical advantage was reduced, it held important heights south of Gettysburg. As additional Union reinforcements arrived on the scene, Lee found himself facing Meade's entire army on higher ground. Because they failed to seize Cemetery Hill and Culp's Hill on the first day, the Confederates missed an opportunity to win the battle.¹⁶

Day 2

By the second day, both armies had been reinforced and were spread out along a 3-mile front from north to south. The Confederates, now fielding 3 corps (about 63,000 troops and 250 artillery pieces),



occupied Seminary Ridge and the terrain north and west of Gettysburg. A mile away, 6 Union corps (about 65,000 troops and 300 artillery pieces) described a "fishhook" that curved from Culp's Hill and Cemetery Hill in the north (the Union right) down Cemetery Ridge to Little Round Top and Big Round Top. Another Federal corps of 13,000 men was due to arrive shortly.

Because Stuart's cavalry had yet to arrive, Lee still lacked good intelligence about the strength

attack was contained. The same happened to Hill's attack, which lacked comparable verve and met stiff resistance. By the end of the second day, the Confederates had inflicted another 10,000 Union casualties and lost 7,000 troops, but they had failed to punch through.

Day 3

Lee approached July 3 with a belief that the Confederates were winning and had come close to victory on July

2. He knew that Meade's losses were heavier than his. That the Confederates had not overrun the Union line was, in Lee's reckoning, the result of poor execution by his generals, not of an inherently disadvantageous position, flawed planning, or Meade's skill in shifting forces along the Federal fishhook. By nightfall of July 2, Lee had made up his mind to continue the offensive in search of a breakthrough.

But Lee would attack differently than on Day 2. To lead the main thrust, he chose Longstreet, his best corps commander and the one who had fought hardest to that point. Longstreet recommended a march around Meade's southern flank to position the Army of Northern Virginia between the Union's army and its capital, forcing Meade to attack. Lee decided instead to attack the Union center on Cemetery Ridge, which he figured had been thinned of forces because of the previous day's fighting south of there. While Longstreet thought the previous day had confirmed the folly of assaulting the Federal line, Lee was emboldened by how close to victory he had come despite poor execution. Pointing to what he thought was that spot—a copse of trees on Cemetery Ridge—Lee brushed aside Longstreet's recommendation: "The enemy is there, and I intend to strike him." If Lee meant to convince Longstreet that there would be no reconsideration of an attack, he succeeded.¹⁷

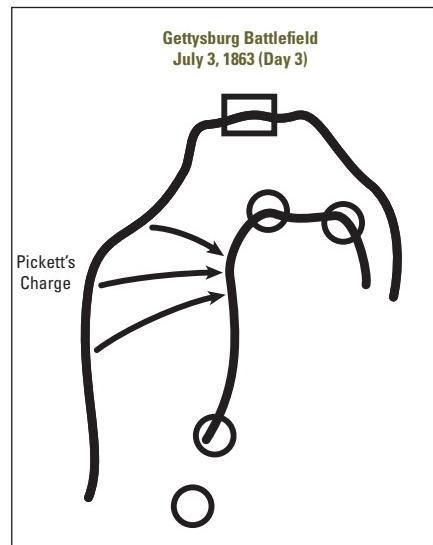
Longstreet was told to use General George Pickett's fresh division from his own corps, plus six brigades from Hill's adjacent corps—nearly 13,000 troops. The attack would be preceded by a massive cannonade aimed at suppressing Union artillery and hammering Union infantry at

the intended point of attack. The Federal center was chosen by Lee because he believed he could pierce the line there and effectively unhinge Meade's entire force. Longstreet was assigned three additional brigades from Hill that could be used as reinforcements to exploit the break.

Lee also ordered another attack by Ewell against the Union right to prevent reinforcement from there to the center. Stuart, having arrived at last, was to enter the Union rear to create havoc and impede retreat.

In sum, Lee's plan of attack was at once intricate and elegant. Synchronizing artillery, infantry, and cavalry, he aimed to gain a decisive advantage of force at a vulnerable point in the Federal center. Upon breaking through there, his forces would drive into the rear and envelope and destroy three corps that formed the entire northern flank of the Union Army.

Longstreet's attack in the center was itself guided by a precise plan of maneuver. The nine assault brigades initially were spread out



and disposition of Union forces. He was faced with the choice of continuing the assault or withdrawing to find more advantageous terrain for a decisive battle. Longstreet favored withdrawal because he lacked confidence in a Confederate attack against massed Union troops on high ground (having been on the receiving end of Burnside's failed attacks at Fredericksburg). Lee, the student of maneuver, reached the opposite conclusion. Reluctant to forfeit a chance for a conclusive victory, he judged that a multipronged attack could sweep the enemy's line and enable the Confederates to defeat the retreating Federals in detail.

Accordingly, Lee crafted a sophisticated strategy for the second day. He ordered Ewell to launch a diversionary attack on the Union right flank on Cemetery Hill and Culp's Hill, the aim being to pin down Union forces there, preventing them from redeploying to where the main attack was to occur. Simultaneously, Longstreet was to commit eight brigades to assault the Union left flank on Big and Little Round Tops. Shortly after Longstreet attacked, and assuming Meade would divert forces from his center to meet him, Hill was to use five brigades to assault further north along the Union line on Cemetery Ridge. Lee's aim in this phased attack of 18,000 troops was to produce a breakthrough by Longstreet, Hill, or both.

On this day and the next, Lee thought it was possible to create favorable odds at a particular point for his infantry to overrun Federal infantry that he had come to regard as inferior. Although on higher ground and more tightly coiled than Lee's army, Meade's was vulnerable to collapse if it could be breached. Thus, a critical premise of Lee's thinking appears to have been that a rupture in the Federal line could carry the day, the battle, and possibly the war.

Lee's attack plan on Day 2 was theoretically capable of producing such a rupture. Yet it required a precise choreography that exceeded the capacity of his generals and forces. Lee wanted the attack to commence early in the day, thereby denying the Union army time to reinforce and prepare. But troubles in moving Longstreet's brigades into position delayed the attack until late afternoon. When the battle began, Ewell's attack on the Union right was not carried out with sufficient vigor to prevent Meade from reinforcing from north to south. In contrast to Ewell, Longstreet attacked with vigor and smashed a Union corps under General Daniel Sickles that had ventured too far forward into a peach orchard between Cemetery and Seminary Ridges. But because Meade was able to reinforce, Longstreet's

Lee's plan of attack aimed to gain a decisive advantage of force at a vulnerable point in the Federal center

along a wide front, attempting to prevent the Union Army from perceiving the intended point of attack. As these brigades charged toward Cemetery Ridge, Pickett's three brigades, under Generals Richard Garnett, Lewis Armistead, and James Kemper, were to pivot to the left, thus concentrating nine brigades against a narrow and overmatched segment of the Union line.

Lee's plan just might have worked if all its moving parts had functioned as and when planned.¹⁸ Success had multiple dependencies: Ewell's attack on Culp's Hill; knocking out the Union artillery on Cemetery Ridge; Pickett's oblique infantry maneuver during the charge; Meade's failure to reinforce his center; and the availability of sufficient combined Confederate forces to turn a breach in the Federal line into a complete rout. Lee knew that this plan contained risks; he admitted as such when he told A.P. Hill that his corps "will be needed [as a reserve] if General Longstreet's attack should fail."¹⁹ However, inspired by faith in his troops, he judged that the attack could succeed.

Ewell became engaged much earlier than Lee intended when Union forces preemptively assaulted him early before dawn, long before Longstreet could organize his ad hoc force from two different corps to attack. By mid-morning, the engagement to the north produced a stalemate, freeing Meade to focus on Cemetery Ridge, where he correctly predicted the main attack. The Confederate artillery barrage took place in early afternoon. But Union artillery was not suppressed, and Union infantry was not weakened as planned.²⁰

Without either artillery support—Confederate artillery had expended its ammunition—or a timely attack by Ewell, Pickett's division and the other six brigades started across the open field. Their corps commander, Longstreet, was sure they would fail but had been given no latitude by Lee to call off the attack if conditions were not right. By the time the Confederate infantry neared Cemetery Ridge, it was already decimated.²¹ Only 200 men under Armistead reached the Federal line, whereupon Armistead was shot dead. The Yankee reinforcements quickly sealed the small puncture in the Federal lines. Confederate reserve brigades, a mile away on Seminary Ridge and facing active Union artillery, were never committed to help—not that they could have rescued the situation.

Pickett's Charge and associated operations resulted in 7,500 Confederate killed, wounded and missing—60 percent of those committed—to only 1,500 Union casualties. Nine of Pickett's 15 regimental commanders were killed, and the rest were wounded. The next day, Lee and his badly damaged army began an orderly retreat to Virginia. The Army of the Potomac, also spent from the 3 days, did not counter-attack or pursue Lee aggressively, for which Meade was severely criticized. Even so, he had won a victory. Ironically, Lee had been right to expect his invasion to climax in a decisive battle: Gettysburg proved to be the high-water mark of the Confederacy.

Why Lee Lost

Lee's attack strategy for Day 3—for that matter, also for Day 2—was based on vintage Napoleonic thinking: to gain and exploit, by fast maneuver and concentration, an advantage at a critical time and place despite lacking favorable terms overall. Similar strategies had worked for Lee in the past.²² But it depended on the synchronization of Ewell's and Longstreet's attacks and the success of Confederate artillery in suppressing Federal artillery, with something left to support Pickett's Charge, neither of which occurred. It also depended on the discipline and spirit of Confederate infantry crossing an open field against deadly fire.

Above all, the plan was anchored in the premise that Union generals would not command well and Union troops would not fight well. In fact, the Army of the Potomac, including its much-maligned infantry, fought with skill and courage. As one scholar has put it, "It is questionable whether [the plan] would have worked even if everything had gone right, for the factor that Lee never seemed to consider seriously was the Army of the Potomac."²³ Again, Lee knew he faced risks, but he did not anticipate that an effective enemy, well commanded, would compound and exploit them.

None of the tactical prerequisites for success were fulfilled. In the end, the critical segment of the Union center was not isolated nor weakened nor outfought, and the Union Army, on its advantageous heights, concentrated too many reinforcements and guns to be broken.²⁴ If any plan could have succeeded in dislodging and defeating the Army of the Potomac that day, it is not obvious that a better one was available to Lee. But its design was such that the failure to break the Northern line would result in catastrophic Southern losses.

Lee's complex attack plan, for all its beauty, required precision and proficiency seldom achieved against a formidable enemy in the friction of warfare. Yet the Army of Northern Virginia did not perform up to its previous levels at Gettysburg in general and on July 3 in particular. Lee's lieutenants, especially Hill, Ewell, and Stuart—

less so Longstreet—fell short in carrying out his orders. Whether Lee understood the odds against success for Pickett's Charge is unclear; none of his known statements during or after suggest that he ordered it out of some fatalistic judgment that he had no choice. Because Lee had underestimated the enemy, expected too much of his own forces, dismissed Longstreet's advice to fight differently, and lost the battle at great cost to his army, he was right to shoulder full responsibility.

What Was He Thinking?

Though many scholars have surmised what was going on in Lee's mind before Pickett's Charge, no one—the authors included—really knows. For this essay's purposes, it is as important to understand *how* Lee was thinking as *what* he was thinking. To this end, we offer and will test two alternative hypotheses. The first is that of a predominantly intuitive and subjective Lee. The second is a dispassionately objective and analytical Lee.

In the first hypothesis, Lee comes to Gettysburg with a mental model of decisive victory—a victory both needed and possible—and observes nothing in the first 2 days of fighting to invalidate it. This model is predicated on Lee's admiration for Confederate infantry and low opinion of the Federal infantry, based on his experience in several battles over the previous year. James McPherson calls this Lee's "Chancellorsville Syndrome," based on his success in attacking Hooker's flank and then following up with a successful frontal assault.²⁵ Convinced that the attacks of Day 2 would have cracked Meade's army, had they been properly executed, Lee's model readily yields a plan to isolate, pound, then rush the Federal center. Believing he would not have better odds if the war dragged on, Lee sees great reward for immediate victory and great penalty for the absence of victory. The attack by Ewell to prevent Meade from reinforcing from the right and the artillery bombardment on the Federal center would improve the odds but, in this model, are not considered prerequisites. By the evening of July 2, Lee's mind is settled. All that remains is to give his corps commanders firm and clear instructions, lest they repeat their desultory performance of the second day.

In the second hypothesis, Lee makes his decision only after weighing the pros and cons of several alternatives: withdrawal, repositioning astride the Army of the Potomac's line to Washington, and renewed attack. Fearing the political impact of retreat in the South, the North, and Europe, and knowing that unless he defeats its army, the North can gain time to bring its industrial and demographic power to bear, Lee rejects that option. The idea of maneuvering around Meade is not without merit (though Lee would not admit so to the ambivalent Longstreet), in that it would necessitate a hasty Federal attack or else leave Washington vulnerable and in a panic. But exiting the Gettysburg battlefield would be tricky and expose Lee's army in motion to a Union attack. All things considered, Lee decides that attacking Meade's weakened center is best, as long as the dangers of Federal reinforcement and Federal artillery are neutralized.

One clue supporting the first hypothesis is that Lee did not convene a war council to help him decide *whether* to attack, something he had done before and after when grappling with such strategic decisions.²⁶ Indeed, Lee seemed not to welcome the unsolicited advice he got from Longstreet. However, this is at best circumstantial evidence. Perhaps Lee did seek advice, of which no record was made. Or perhaps he chose not to seek advice but nonetheless systematically reviewed his options before deciding.

More significant is whether Lee treated his decision to attack as a conditional one. Had Lee relied on analysis to reach this decision, per the second hypothesis, he is likely to have recognized that an attack was better than any alternative *if* certain preconditions were satisfied. In particular, given the importance of isolating and weakening Federal infantry at the point of attack, either Meade's tactic of engaging Ewell early or uncertainty about the effects of the pre-charge artillery bombardment might have caused Lee to reconsider. Lee became aware of the premature engagement of Ewell 10 hours before Longstreet released Pickett to attack. At the very least, Lee might have been sensitized to the need for a successful artillery bombardment.

Thus, in a painstaking review of options, *attack* may well have looked better than *do not attack*, but *attack if* should have looked better than *attack no matter what*. After all, the consequences of defeat were undoubtedly worse than those of passing up an attack. In the second hypothesis, a calculating Lee would likely have treated the decision to attack as a provisional one and left room to acquire information, learn, and adapt as indicated. To the extent that Lee did not think through the implications of a failed attack with those of the flanking strategy proposed by his leading corps commander, the first hypothesis seems more plausible.

We do not know what Lee was thinking. But we do know he did not *act* or *speak* as if he had made a provisional decision to attack and then kept the decision under review pending progress in meeting what can reasonably be viewed as preconditions. "Analytic Lee" would have done what Lee did not in fact do. In particular, he would have been intensely interested in the implications of unmet preconditions. As noted, the lost chance for a coordinated attack by Ewell would have alerted Lee to the danger that his odds would be worse than planned. But the "smoking gun" was that Lee did not insist on a report from Longstreet or his artillery commander about whether the bombardment had silenced the Northern artillery with enough ammunition left to support Pickett's Charge. We know that the artillery commander, Colonel E.P. Alexander, had doubts on precisely this point.²⁷ Had Lee sought a report, it would have called into question the wisdom of proceeding and made other alternatives look better by comparison after all.

Alternatively, a more calculating Lee would have given Longstreet the latitude to call off the charge if the artillery bombardment did not have the necessary effect. In fact, we know from Longstreet's remarks at the time that Lee was unequivocal in ordering the attack, leaving Longstreet with no choice as the bombardment ended but to allow an attack he fully expected to fail. Given Longstreet's premonition of catastrophe, had Lee given him room to call off Pickett, or even appeal to Lee to reconsider, there is little question that he would have done so, especially after hearing Alexander's analysis.

Conversely, if Lee was relying on his faith in the superiority of Confederate infantry over Federal infantry, his decision is less likely than otherwise to have been contingent. Confronted with the question of whether he should resume the offensive following Day 2, Lee invoked his mental map, which told him that he should. With that as a given, not to be revisited, he then ordered measures to improve

the prospect of success—measures that proved inadequate because of poor Confederate execution, superior Federal artillery, and Meade's skillful movements.²⁸ But Lee did not "keep a string" on his decision to see if those measures were effective and to reconsider his options if they were not. If Lee's

inclination to attack was strong enough to forego serious analysis of all options, it would not be reversed because conditions were not ideal.

Though he did not acknowledge it, Lee was confronted with unfamiliar circumstances at Gettysburg: namely, a Federal infantry that would not fold and a Federal commander who would not panic. Yet, Lee's decision was as if the enemy he faced was the enemy of his experience. There is no indication that Lee considered the possibility that this was not the enemy of his model.²⁹ Moreover, Lee's subjectivity—his esteem for his troops and maybe even his wish to end a brutal war that he entered with misgivings—appears to have affected his judgment. This is another indicator of heavy reliance on intuition, insofar as reasoning demands and rewards objectivity.

The other possibility is that Lee concluded after objective reasoning and careful consideration of his options that he had no choice but to attack. After all, there was merit in his assessment that Confederate chances would likely get worse. One historian suggests that "Lee must have known that an attack was a calculated risk that had to be taken."³⁰ If this was his reasoned conclusion, he would not necessarily have placed conditions on the order to attack, which could explain why he did not rethink when the plan started to go awry. But if Lee rationally concluded that he had no choice but to order Pickett's Charge, his thinking was very bad indeed. Even if he felt this was the best chance for victory, he should have calculated that a retreat with his army intact would have been better than a retreat with several divisions destroyed.

Although consideration of our two hypotheses reveals no clear answer, it seems that the usually battle-wise Lee depended too much on his experience and not enough on cold reasoning in the light of the latest information available. On balance, we agree with those who believe that Lee's decisionmaking failed him and his army, and our explanation is that he trusted a mental model that did not describe reality on July 3, 1863. Lee's judgment of *how* to attack was excellent but inadequate given his original sin in deciding *whether* to attack.

Conclusions

Holding up Lee's decisionmaking preceding Pickett's Charge to the standards of battle-wise cognition, three shortcomings stand out, each compounding the others.

First, Lee did not employ adaptive decisionmaking. There were, in fact, necessary conditions for success: a coordinated attack and a successful artillery bombardment, both aimed at isolating and weakening the Federal infantry in the center so it could be beaten by Lee's own. Lee did not adapt, or even put himself in a position to adapt, such as giving instructions that the final green-light for Pickett had to come from him. Adaptation is dependent on analysis of new information, and Lee seems to have been indifferent to new information. In circumstances that warranted an *attack if* decision, Lee neglected the *if* and thus saw no reason to learn and adjust as Day 3 unfolded.

In his general approach to command, Lee felt his main duty was "to bring my troops to the right place at the right time," and then to leave execution to his corps, division, and brigade commanders. "I strive to make my plans as good as human skill allows, but on the day of battle I lay the fate of my army in the hands of God." True to this philosophy, Lee made no attempt to revise his plans or to intervene after he had issued his instructions. Whatever virtue there may be in such faith in his generals and troops, it left no room for adaptation, which could have averted disaster. Again, so adamant was Lee that the attack would occur no matter what that subordinates in position to see the plan go awry—Longstreet and Alexander, among others—dared not appeal. Far from adaptive, Lee's decisionmaking on the third day at Gettysburg was rigid and fragile.

Additionally, by relying so heavily on his regard for Confederate infantry and disregard for that of the Union, Lee fell victim to subjectivity and pride, bordering on the romantic. In Kent Gramm's words, "Lee is a victim of his own hubris."³¹ These beliefs were rooted in Lee's affection for his men and his sense, not completely justified, that they were as committed as he to the Southern cause. (Lee's soldiers were seemingly more committed to him than to his cause.) Such sentiments gave rise to an illusion of superiority that reality did not support and that objective reasoning could have banished. The illusion was that Northern soldiers would not withstand a well-executed attack by his soldiers, even though the Yankees had proved stalwart for 2 days and were defending their own soil under a tough new commander. Lee's subjectivity obscured his recognition that conditions at Gettysburg were unlike those of his experience.

Finally, Lee did not exhibit the important cognitive quality of self-awareness. In regard to his basic decision to attack, he probably did not ask himself, "Might I be wrong?" (He certainly did not ask others if he might be wrong.) Had Lee been more aware of the limitations and pitfalls of his model under the circumstances, he might have contemplated the merits of other options or, if nothing else, the need to satisfy the preconditions of a successful attack. After 2 days of heavy fighting, a more self-aware Lee might have questioned his premise that the enemy he fought at Gettysburg was the same one that fled at Chancellorsville.

Still, the question lingers: Why did the normally battle-wise Lee perform otherwise on this particular day?³² Perhaps conditions at Gettysburg were such that Lee's imperfections as a decisionmaker were more consequential than on other occasions. Perhaps a subjective model formed by a career as a soldier (a bias toward offensive maneuver) and year as a successful commanding general (an almost spiritual faith in his infantry and disdain for his enemy) collided with factors that contradicted it (superlative artillery and an unyielding enemy). Before Gettysburg, Lee's model worked; after, he altered it.³³

Keep in mind that the relationship of offense to defense was changing during the Civil War. The virtues of precise and sharp attack had been shown and accepted since the Napoleonic wars, throughout Lee's development as a soldier. But industrial-age firepower was starting to favor the defense, all else being equal. If Fredericksburg showed the promise of fixed defense, Chancellorsville showed that maneuver could still prevail. If Lee was struck by the latter, which confirmed lessons of his career, the former was etched in Longstreet's mind.³⁴ Gettysburg might be regarded as a turning point not only in the Civil War but in military history, as the era of Bonaparte receded and the slaughter of charging soldiers in World War I was foreshadowed. It was the same Lee, but the need for self-awareness and objectivity was never more acute.

Perhaps, too, the battle-wisdom of his Union counterpart was unforgiving of Lee's cognitive shortcomings. We must note what military analysts and historians often overlook: the brilliance of George Gordon Meade in the run-up to Pickett's Charge. He saw the likelihood that Lee would elect to attack his center. He initiated action on the Confederate left before Ewell could attack his right. He had his forces poised to reinforce quickly where attacked. He had his best corps commander, General Winfield Scott Hancock, stationed at the exact place where Pickett charged, and Hancock performed up to Meade's high expectations. On the recommendation of his artillery commander, Meade ordered the Federal artillery fire to subside in order to convince the Rebels that their artillery bombardment had suppressed it. In inviting an attack, Meade saw a future that Lee could not.

Meade was as dogged as he was brilliant at Gettysburg. He never considered withdrawing from Gettysburg—as McClellan and Hooker might have done—despite the beating his left took on Day 2. His determination owed as much to his analysis of a favorable situation as to any innate tenacity.³⁵ In battle-wise terms, Meade was adaptive, opportunistic, analytical, quick, and good at processing fresh information. He also sought and carefully weighed inputs from his chief subordinates—he held a thorough war council on the eve of July 3. Had Meade not exhibited

battle-wisdom at Gettysburg, Pickett's Charge might not have been a mistake.

Implications

What do such findings imply for present-day military decisionmakers and decisionmaking? We could hardly argue that today's military ought not to recruit and give important assignments to persons with Lee's cognitive abilities. Again, he embodied and usually employed the combination of sound intuition and thoughtful analysis that is so precious in our times. Lee's predilection for risk-taking was dictated by the Confederacy's situation, and he normally took well-calculated risks. True, Lee was susceptible to romanticism; but the military should not expect or want commanders without beliefs, provided they do not contaminate objectivity. As a commander, Lee is a splendid model overall, notwithstanding the defects revealed by his mistake in ordering Pickett's Charge. Indeed, Lee's plan of attack is worth studying for its merits, just as his decision to attack is worth studying for its flaws.

Perhaps the most significant lesson from July 3, 1863, concerns the *method* of decisionmaking. Though he may not have seen it as such, Lee's decision to attack was at best a close call. It should have been consciously acknowledged and then revisited when preconditions for success were not met. The decision to attack can be understood today, if not necessarily endorsed; but the failure to seek new information,

learn, and change course cannot. Rapid adaptive decisionmaking might have saved Lee's army. If anything, it is more vital in today's world of networked information and unfamiliar conditions than it was in 1863.

At a deeper level, Lee's inability to question his model, to ask if he could be wrong, should be taken to heart. Lee's model was formed by a time that was giving way to a new and very different era. He thought the situation and the enemy he faced at Gettysburg were familiar, but they were not. His failure to stand away from his experience and doubt his intuition cost his army dearly. In our period of rapid change in military technology and operating dynamics, it is especially crucial to have decisionmakers with enough self-awareness to see the limits and hazards of their mental maps.

Finally, military educators could not do wrong to stress the lessons of Meade's decisionmaking at Gettysburg—even his failures to counter-attack or to give chase as Lee's army limped off the field. The ultimate lesson for the U.S. military is that it is not enough to have battle-wise decisionmakers; they must be more battle-wise than their enemies. On that day, Meade out-thought his legendary adversary.

Notes

¹ One scholar argues that Lee was a better general after Gettysburg than before. Kent Gramm, *Gettysburg: A Meditation on War and Values* (Bloomington, IN: Indiana University Press, 1994).

² Lee's official report on the battle to Confederate president Jefferson Davis revealed little more than Lee's judgment that continuing on the third day the offensive action of the first 2 days was the correct course of action but that execution was flawed. Apart from its economy, the report suggests that Lee did not think, or would not admit, that he had made a fundamental mistake.

³ David C. Gompert, Irving Lachow, and Justin Perkins, *Battle-Wise: Seeking Time-Information Superiority in Networked Warfare* (Washington, DC: National Defense University Press, forthcoming).

⁴ Gary Klein, *Intuition at Work: Why Developing Your Gut Instinct Will Make You Better at What You Do* (New York: Random House, 2005). Klein's work on intuition has paid dividends in preparing people, including military personnel, to make decisions under pressure. *Battle-Wise* largely embraces Klein's research and insights but, in addition, stresses the importance of complementing intuition with analysis.

⁵ Gompert et al.

⁶ Ibid.

⁷ Arguably, Lee's decision to split his force at Chancellorsville could have resulted in major damage to the Army of Northern Virginia, though in that case the combination of excellent Confederate generalship—by Jackson, in particular—and the fierceness of Confederate troops produced victory.

⁸ David C. Gompert and Richard L. Kugler, *Custer in Cyberspace*, Defense Horizons 51 (Washington, DC: Center for Technology and National Security Policy, February 2006).

⁹ In fairness, Custer established himself as an exceptional fighter and leader (as a Northern cavalry brigadier general) on the very day—July 3, 1863—that Lee proved fallible.

¹⁰ In this, Lee's thinking reflected the military experiences of the first half of the 19th century rather than the technological applications of the second half. Although there were instances of disastrous attacks in the Civil War, such as those of Union forces at Fredericksburg and Cold Harbor, they were typically ill-conceived, as Pickett's charge was, rather than doomed by technological odds. Toward the war's end, however, the forces of both sides were in trenches, reflecting the shift of advantage toward defensive firepower. By World War I, of course, industrial-age technology had tipped the advantage to the defense.

¹¹ McClellan thought Lee's army was significantly larger than it was, which helps account for his caution.

¹² For a historical appraisal of Lee's battles before Gettysburg, see James M. McPherson, *Battle Cry of Freedom: The Civil War Era* (New York: Oxford University Press, 1988).

¹³ The complete failure of repeated Union charges at Fredericksburg may have contributed to Longstreet's misgivings about such frontal attacks. Evidently, Lee did not read it that way.

¹⁴ Total casualties (dead, wounded, captured, and missing) were horrific: 28,000 (37 percent) of the Confederate army and 23,000 (25 percent) of the Union army—the most of any Civil War battle. Lee's army after the battle numbered about 47,000 more or less able-bodied men, whereas Meade's was 67,000, with the latter having a much easier time re-filling the ranks.

¹⁵ At Gettysburg, each of the three Confederate corps (three divisions apiece) averaged 20,000 troops; Stuart's cavalry numbered 10,000. Each of the seven Union corps averaged 10,000 troops; Union cavalry totaled 12,000. Confederate corps were large because each division typically contained four or five infantry brigades. Union divisions had only three brigades.

¹⁶ Multiple historical books provide descriptive appraisals of Days 1–3 at Gettysburg. For an especially detailed account, see Scott Bowden and Bill Ward, *Last Chance for Victory: Robert E. Lee and the Gettysburg Campaign* (Cambridge, MA: Da Capo Press, 2001).

¹⁷ Shelby Foote, *The Civil War: A Narrative, Fredericksburg to Meridian, Volume II* (New York: Random House, 1974), 529.

¹⁸ It is a matter of debate whether Lee's plan would have worked even if well executed. The expectation that the Army of the Potomac would completely fracture if Pickett succeed in rupturing its center assumed that Union generals would not be able to respond to seal the wound and that the Confederates could follow up with sufficient force to exploit it decisively.

¹⁹ Foote, 531.

²⁰ Confederate artillery ran short of ammunition, was unable to strike some Union artillery because of terrain, and overshot Union infantry units. Union artillery, which had a reputation for excellence, conserved its ammunition so that enough was available when the Confederate infantry attack began.

²¹ On Day 2, the 11-brigade Confederate attack along the southern portion of Cemetery Ridge was spread out along 1 ¾ miles of frontage. On Day 3, by contrast, the 9-brigade attack was focused on only ½ mile of frontage. The effect was to concentrate great pressure against a small portion of the Union line. But the Union Army was able to concentrate several brigades there, supported by large artillery forces. Thus, Lee did not have a decisive advantage at the point of attack.

²² Lee's forces had broken through under similar conditions at Gaines Mill a year earlier. Foote, 522.

²³ Gramm, 188.

²⁴ A key feature of Days 2 and 3 is that Meade always had a full corps in operational reserve to reinforce pressure points along his line. General George Sykes' Fifth Corps provided the reserve on Day 2, and General John Sedgwick's Sixth Corps provided the reserve on Day 3.

²⁵ McPherson, 94.

²⁶ For example, Lee consulted Jackson at length before deciding how to respond to Hooker's initiative at Chancellorsville (Foote, 282ff) and, earlier, with Jackson and Longstreet at Fredericksburg (Foote, 32ff). Indeed, Lee conferred with his corps commanders and carefully weighed their views prior to Day 2 at Gettysburg (Foote, 486ff).

²⁷ According to Foote, Alexander knew that "no cannonade had ever driven Union batteries from a prepared position, and he certainly had no confidence that this one would accomplish that result." Foote, 540.

²⁸ Lee would have known of Meade's reputation for sound preparations and skillful placement of forces.

²⁹ In Gramm's analysis, Lee became a better general after Gettysburg because "he had learned something about possibilities."

³⁰ Bowden and Ward, 446.

³¹ Gramm.

³² Claims that Lee was sick, possibly from a heart condition, at Gettysburg have not been confirmed; nor is there any evidence that Lee's usually strong mind was affected by any weakness of his body. See McPherson.

³³ Gramm.

³⁴ Significantly, Longstreet was at Fredericksburg but not Chancellorsville.

³⁵ Later claims of Sickles that Meade had to be talked out of retreating appear to have no substance and were self-serving. See Foote.

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